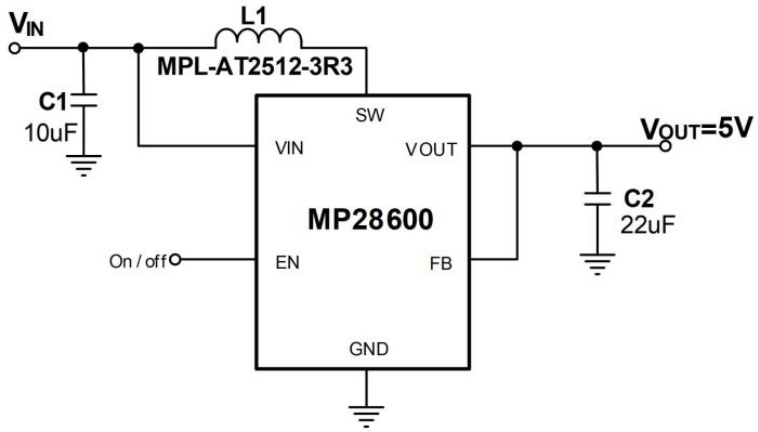
MP28600

Ultra-Low Quiescent Current, Synchronous Boost Converter



Description

The MP28600 is an ultra-low quiescent current (I_Q), synchronous boost converter. It is designed for battery-powered products where high efficiency under light-load conditions is critical to achieve a long battery life.

The MP28600 can start from a low 0.7V input voltage (V_{IN}), then work down to a 0.1V V_{IN} after start-up. The MP28600 features constant-off-time (COT) control mode to achieve high-efficiency conversion under light-load conditions.

The MP28600 features boost mode and down mode for different V_{IN} conditions. In down mode, the output voltage (V_{OUT}) can be regulated to its target value, even when V_{IN} exceeds V_{OUT}.

The MP28600 is available in a space-saving SOT563 (1.6mmx1.6mm) package.

Features & Benefits

- 0.7V to 5.25V Start-Up Voltage (V_{ST}) Range
- 0.1V to 5.25V Operating Input Voltage (V_{IN}) Range
- 2.5V to 5.25V Output Voltage (V_{OUT}) Range
- Constant-Off-Time (COT) Control Mode
- 600nA Quiescent Current (I_Q)
- 1A Fixed Switching Current Limit
- 86% Efficiency for 1.5V to 5V/1mA
- Automatic Switching between Boost Mode and Down Mode
- True Disconnect during Shutdown

- 150°C Thermal Shutdown Protection
- Available in an SOT563 (1.6mmx1.6mm) Package
- Optimized Performance with MPS Inductor MPL-AT Series

Active Part Numbers:

MP28600GTF-Z MP28600GTF-P MP28600GTF-33-Z MP28600GTF-33-P MP28600GTF-50-Z MP28600GTF-50-P

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